

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

1. (Currently Amended) A computer-implemented method for providing predictive information to a human user during the course of conducting an interactive session with a customer, during which interactive session the human user uses an application computing system comprising one or more software applications that run in a computing environment, the application computing system connected to communicate with a prediction computing engine, the computer-implemented method comprising:

    during the course of the interactive session with the customer, the application computing system sending a first electronic request to the prediction computing engine to perform a first prediction determination of a probability that the customer will take a predefined action, the first electronic request including a first input value set;

    in response to the first electronic request, the prediction computing engine using the first input value set to perform the first prediction determination, electronically storing first state information generated as part of the first prediction determination, and providing to the application computing system for use by the human user a first prediction result of the first prediction determination;

    at a later point in time during the interactive session with the customer when additional information about the customer becomes available, the application computing system sending a second electronic request to the prediction computing engine to perform a second prediction determination of a probability that the customer will take the predefined action, the second electronic request including a second input value set comprising at least information derived from the additional information about the customer that became available at the application system after the sending of the first request; and

in response to the second request, the prediction computing engine performing the second prediction determination using both of the stored first state information generated as part of the first prediction determination and the second input value set derived from the additional information about the customer that became available at the application system after the sending of the first request to perform the second prediction determination, the first state information being used to avoid calculations being performed in the second prediction determination that would duplicate calculations that were already performed in the first prediction determination, and providing to the application computing system for use by the human user a second prediction result of the second prediction determination.

2. (Canceled)

3. (Previously Presented) The computer-implemented method of claim 1, wherein the second input value set includes both the first input value set and an additional set of input values, and wherein the method comprises using a decision tree along with the stored state information and the additional set of input values to compute the second prediction result.

4. (Canceled)

5. (Previously Presented) The computer-implemented method of claim 1, wherein the first input value set includes at least two input values.

6. (Previously Presented) The computer-implemented method of claim 1, wherein the second input value set includes at least two input values.

7-10. (Canceled)

11. (Previously Presented) The computer-implemented method of claim 1, wherein the first state information includes intermediate probability information.

12. (Original) The computer-implemented method of claim 1, wherein the first and second prediction results each specify a probability of customer churn.

13-31. (Canceled)

32. (Currently Amended) The computer-implemented method of claim 1, wherein the second input value set is provided to the application computing system by the human user as a result of interaction by the human user with the customer.

33. (Currently Amended) A computer-readable storage medium comprising computer-executable instructions that when executed perform a computer-implemented method for providing predictive information to a human user during the course of conducting an interactive session with a customer, during which interactive session the human user uses an application computing system comprising one or more software applications that run in a computing environment, the application computing system connected to communicate with a prediction computing engine, the computer-implemented method comprising:

    during the course of the interactive session with the customer, the application computing system sending a first electronic request to the prediction computing engine to perform a first prediction determination of a probability that the customer will take a predefined action, the first electronic request including a first input value set;

    in response to the first electronic request, the prediction computing engine using the first input value set to perform the first prediction determination, electronically storing first state information generated as part of the first prediction determination, and providing to the application computing system for use by the human user a first prediction result of the first prediction determination;

at a later point in time during the interactive session with the customer when additional information about the customer becomes available, the application computing system sending a second electronic request to the prediction computing engine to perform a second prediction determination of a probability that the customer will take the predefined action, the second electronic request including a second input value set comprising at least information derived from the additional information about the customer that became available at the application system after the sending of the first request; and

in response to the second request, the prediction computing engine performing the second prediction determination using both of the stored first state information generated as part of the first prediction determination and the second input value set derived from the additional information about the customer that became available at the application system after the sending of the first request to perform the second prediction determination, the first state information being used to avoid calculations being performed in the second prediction determination that would duplicate calculations that were already performed in the first prediction determination, and providing to the application computing system for use by the human user a second prediction result of the second prediction determination.

34. (Previously Presented) The computer-readable storage medium of claim 1, wherein the second input value set includes both the first input value set and an additional set of input values, and wherein the method comprises using a decision tree along with the stored state information and the additional set of input values to compute the second prediction result.

35. (Previously Presented) The computer-readable storage medium of claim 33, wherein the first input value set includes at least two input values.

36. (Previously Presented) The computer-readable storage medium of claim 33, wherein the second input value set includes at least two input values.

37. (Previously Presented) The computer-readable storage medium of claim 33, wherein the first state information includes intermediate probability information.

38. (Previously Presented) The computer-readable storage medium of claim 33, wherein the first and second prediction results each specify a probability of customer churn.

39. (Currently Amended) The computer-readable storage medium of claim 33, wherein the second input value set is provided to the application computing system by the human user as a result of interaction by the human user with the customer.